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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,624	11/20/2003	Yung-Shu. Yang		6352

7590 02/25/2005

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EXAMINER
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DICKEY, THOMAS L

ART UNIT	PAPER NUMBER
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2826

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/716,624

Applicant(s)

YANG, YUNG-SHU

Examiner

Thomas L. Dickey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25, 26, 28, 30, 33, 35 and 37 is/are rejected.
- 7) ☒ Claim(s) 27, 29, 31, 32, 34, 36 and 38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

*ckinhloan Tran*  
**Minhloan Tran**  
**Primary Examiner**  
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**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

1. The amendment filed on 12/08/04 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25,33,35 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by ROBERTS ET AL. (2001/0026011).

Roberts et al. discloses a method for encapsulating a light emitting diode comprising the steps of placing a crystalline grains light-emitting diode chip 35 into a pre-punched first lead frame 14; electrically connecting the first lead frame 14 and the crystalline grains light-emitting diode chip 35 to a second lead frame 16; encapsulating the crystalline grains light-emitting diode chip 35 in a photosensitive polymer 12, the encapsulating step including placing the first lead frame 14, the crystalline grains light-emitting diode chip 35, and the second lead frame 16 in a mold (note step 112 in figure 10) and injecting the photosensitive polymer 12 into the mold; curing the photosensitive polymer 12 at room temperature by exposing the photosensitive polymer

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12 to a visible light or an ultraviolet light or an electron beam, to form an encapsulated light emitting diode; and cutting, testing and packaging (note steps 130-134 in figure 10) the encapsulated light emitting diode. Note figures 1-3,10, and 11 of Roberts et al. Note that the alternative methods of curing of claims 33,35, and 37 are explicitly spelled out (visible, UV, E-beam, etc.) at page 11, left hand column, lines 9 and 10 of Roberts et al.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A. Claims 26,28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over ROBERTS ET AL. (2001/0026011) in view of OOTA (6,018,167).

Roberts et al. discloses a method for encapsulating a light emitting diode with every limitation of claims 26,28, and 30 except that the photosensitive polymer utilized in the encapsulating step includes a Oligomer, a reactive Monomer, and a Photoinitiator. Note figures 1-3,10, and 11 of Roberts et al. Note that the alternative methods of curing of claims 33,35, and 37 are explicitly spelled out (visible, UV, E-beam, etc.) at page 11, left hand column, lines 9 and 10 of Roberts et al.

However, Oota discloses a light emitting diode (LED) encapsulation material manufacturing process including a step of encapsulating a LED chip 41 in a photo-

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sensitive polymer 62 constituting at least one of an Oligomer or a reactive Monomer, said photo-sensitive polymer 62 further comprising a Photoinitiator. Note figures 6A,6B and column 14 lines 16-36 of Oota. Therefore, it would have been obvious to a person having skill in the art to augment Roberts et al.'s method for encapsulating a light emitting diode with the photosensitive polymer including an Oligomer, a reactive Monomer, and a Photoinitiator. such as taught by Oota in order to more rapidly trigger a free radical polymerization reaction of the photo-sensitive polymer to thus prompt rapid curing of the photo-sensitive polymer and enhance production efficiency.

#### ***Allowable Subject Matter***

4. Claims 27,29,31,32,34,36 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 25,26,28,30,33,35 and 37 have been considered but are moot in view of the new ground(s) of rejection.

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### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas L Dickey whose telephone number is 571-272-1913. The examiner can normally be reached on Monday-Thursday 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**TLD**  
**02/05**